

## **COUNCIL ON DEVELOPMENT FINANCE**

**June 2, 2008  
PUBLIC HEARING 343**

### **THOSE PRESENT:**

Mr. Fred Sears, Acting Chairperson  
Senator Nancy Cook  
Mr. Tom Gilligan  
Mr. James Hutchison  
Mr. Donald Lynch  
Mrs. Richelle Vible

Mr. Gary Smith  
Mrs. Lee Porter  
Mrs. Barb DeHaven  
Elio Battista, Jr., Esquire  
Mr. Joe Backer

**ALSO PRESENT:** Representing **Applied Diamond, Inc.:** Mr. Joseph Tabeling, President and Dr. Peter Morton

**LOCATION:** Delaware Economic Development Office, 99 Kings Highway, Dover, Delaware

**TIME:** 9:00 A.M.

### **CALL TO ORDER**

The meeting was called to order at 9:10 A.M. by Mr. Sears, Acting Chairperson, on Monday, June 2, 2008.

### **OLD BUSINESS:**

Mr. Hutchison made a motion that the minutes of the April 28, 2008 Council on Development Finance meeting be approved as presented. Mr. Gilligan seconded the motion, which was then adopted by unanimous vote.

### **NEW BUSINESS:**

**Applied Diamond, Inc. (“Applied Diamond” or the “Applicant”)** - The Applicant is requesting a matching grant from the Delaware Strategic Fund under the Delaware Technical Innovation Program in the amount of \$50,000. The Applicant will utilize the grant for the development of sub-micron thick diamond foils (the “Project”). The Project is located in Wilmington, Delaware.

Mrs. DeHaven introduced Mr. Tabeling and Dr. Morton. She stated that Applied Diamond applied for a Phase I funding for this Project, which was approved and it is now moving into the Phase II. Mrs. DeHaven stated the Project is all around the creation of diamonds.

Mr. Tabeling stated that the products are small. He stated the company was founded in 1986. His father was a 26-year veteran of DuPont when he was given his last assignment which was to sell three of the current businesses. He sold two and bought the third one. It is now a family owned business. He stated the product that was purchased from DuPont was a diamond knife. It is used to cut extremely thin slices – 30 nano meters thick. He stated these slices have to be

perfect. He stated that the edge that the Applicant puts on this piece of diamond is considered to be the finest edge ever put on any material.

Mr. Tabeling stated they were asked by a company, Tungston Carbide, to sharpen its Tungston Carbide knives which Applied Diamond now does. Mr. Sears asked what were Tungston knives. Mr. Tabeling stated that they are knives used to make very, very thin slices. Mr. Tabeling stated that the company's product is being used in various ways such as bone research, advanced stints, scalpel blades for eye surgery, scribing tools for semi conductor processing, in devices used in wireless phones and pagers and in fiber optic cleaving.

Mr. Tabeling stated that the primary competitor was a division of DeBeers located in the Netherlands which actually closed its shop in January. He stated that Applied Diamond has contacted all of those customers and have even filled first orders. Mr. Sears asked if DeBeers sold the business or actually closed up. Mr. Tabeling stated the company literally closed up. He stated Applied Diamond is the largest supplier for diamond edges. He stated they do a lot of work with all forms of diamonds. They don't actually make diamonds; they make windows for analytical purposes. They make blanks for other scalpel makers in the U.S.

Mr. Tabeling stated that in the early 90s, Applied Diamond was approached by scientists who had come up with a new way of making diamonds. They make them into a wafer form. He stated that from this technology, you have large pieces of diamond that you cannot find in the ground. He stated that diamond has the highest thermo-conductivity in the world and you can work with that. He stated the transparent material makes it unique. They make infra red spectrometers, prisms and lens. All of this is physically made in Delaware.

Dr. Tabeling stated that this particular SBIR grant deals with very thin films of this material. He stated the Department of Energy is interested in stripper foils made from diamonds. They strip out the bad ones by passing them through a coil. Because they need the coolness to last longer, they have chosen diamond to work with. They are partnering with Michigan State. Applied Diamond provided coils which lasted up to 145 hours. He stated there are several potential uses for diamond. One process would allow a company to do an analysis of live cells. He stated diamond offers a number of unique properties. This SBIR has to do with making products out of these very thin foils made with diamond.

Dr. Tabeling stated that Applied Diamond has added four and one-half employees since the beginning of the year. He would like to add an engineer in the near future. They have a number of marketing initiatives going on. They need to determine who the appropriate stripper foil people are. They are developing some literature for thin membrane customers. They are also looking for other applications. Dr. Tabeling stated that they recently got an order for more of these products. He stated the SBIR funding would allow the Applicant to make the improvements required.

Mrs. Vible asked what type of employees Applied Diamond hired - what skills - how difficult to find. Dr. Tabeling stated that they will be looking for three additional people in the production area. He stated they couldn't hire anybody that knows about diamonds; they have to train them.

They want them to have a high school diploma, want them to like working with their hands and someone who “likes to make stuff”. He stated they would like the engineer to have eight to ten years of experience in either mechanical or chemical engineering. He stated however, that most of the training has to come within.

Mr. Sears asked if the Applicant had a five-year forecast. Dr. Tabeling stated he didn’t believe they had such a forecast with respect to sales or employees. He stated the business climate changes so much, so drastically. Mr. Sears asked if he thought the market could go to \$10,000,000 in sales in five to ten years or did he think it would stay about the same. Dr. Tabeling stated that he doesn’t see it going that high. He stated that Applied Diamond is experiencing growth but with everything taken into consideration such as the purchase of a new machine costing about \$400,000, sales would probably not go that high.

Mrs. Vible asked why DeBeers exited the business. Mr. Morton stated they felt the business was not large enough in revenues. He stated they only dealt with the fiber optic portion of that business. Dr. Tabeling stated that there is a lot of growth for Applied Diamond.

Mr. Sears asked if there were any public comments; there were none.

After duly considering, inter alia, the nature of the business, that the Applicant is a “small business” within the meaning of 29 Del. C. §5035 (b)(3), that the Applicant has won a Phase I award in the Federal SBIR Program, that the Applicant has submitted a proposal for a Phase II SBIR award but has not yet received such award, that the Applicant’s principal place of business will be located in the State of Delaware; and that the research to be conducted will benefit the Delaware economy, and other requirements under applicable statutory and regulatory provisions, Mr. Hutchison made a motion that the Council recommend to Mrs. Judy Ann Cherry, Chairperson of The Delaware Economic Development Authority, approval of a grant in an amount not to exceed Fifty Thousand Dollars (\$50,000) to be disbursed from the Delaware Technical Innovation Program (“DTIP”), to be used for the Project, contingent upon the approval remaining in effect through and including June 1, 2009. Mr. Gilligan seconded the motion, which was then adopted by unanimous vote.

**Immunomic Therapeutics, Inc. (“ITI” or the “Applicant”)** - The Applicant was requesting \$500,000 from the Emerging Technologies Pre-Venture Fund. The Applicant proposed to use the proceeds towards product development. ITI is an early stage biotechnology company formed to commercialize the LAMP vaccine technology for the human and veterinary markets.

Mr. Smith distributed the minutes of the last Emerging Technology Pre-Venture Fund Board (the “Board”). He stated the Board made a decision, after a lot of discussion, to not make an investment into ITI. He stated that the Applicant had been notified and the Applicant was informed that if additional information came to light, the Project could be presented again. Mr. Smith complimented Mrs. Inamdar on her in-depth presentation to the Board.

Mrs. Vible asked why the Board voted against the Project. Mr. Smith stated that there were questions concerning the size of the Pre-Venture Fund. It came down to a risk factor. He stated

that if DEDO had \$20 million, the Board probably would have approved the Project. However, because the fund was small, it was felt that this Project was beyond the risk factor. He stated the Board also had some discussion on the business model. He stated the Board felt that the Applicant was waiting for results to come out of Brazil and that it was looking at this fund to fund that gap. Mr. Smith stated it was a tough vote. Mr. Sears stated that after reading the material, he also thought it was a close call but felt there were too many “pink” flags.

Mr. Sears stated he likes to see the due diligence information. He feels it gives a sense of what’s involved and what is going on. Mr. Gilligan asked if the Board gave the Applicant any sense of direction. Mr. Smith stated it did not. Mr. Smith feels the Applicant may be back if it can get additional investment. He is aware they are looking at Pennsylvania but that is quite a distance to relocate its operation plus it takes them further away from John Hopkins.

Mr. Smith stated the Board did approve the Nayatek project which may be ready to be presented to the Council in two to three months.

**ADJOURNMENT:** The meeting was adjourned at 9:50 A.M.

Respectfully submitted,

Lee Porter, Secretary

*LKP*

cc: Members of the Council on Development Finance  
Director Judy Ann Cherry  
Elio Battista, Jr., Esquire

The next CDF meeting is scheduled for *Monday, June 30, 2008* at 9:00 A.M. at DEDO’s Wilmington office.